

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001622**Date Inspected:** 28-Feb-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Huang Wen Pang,**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Plate Material Verification/Check Samples/flow**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector Sherri Brannon arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China to periodically monitor welding and Quality Control (QC) functions. While on site the QA Inspector observed and/or discovered the following.

Plate Material Storage Yard (production):

QA Inspector Brannon received plate material list for batch #87 production plate list No. 5067~5121 received from American Bridge/Fluor (ABF). QA Inspector Brannon went to the ZPMC material storage yard accompanied by ZPMC Quality Assurance Miss. Zhu Weijuan and Mr. Zhong Chuan. Verification of plate material is based on random verification.

Plate Material Storage Yard (check samples):

Quality Assurance (QA) Inspector Brannon received plate material list for Caltrans check test samples, plate list No. 194 & 196 (46th batch)received from American Bridge/Fluor (ABF). QA Inspector Brannon went to the ZPMC plate material storage yard accompanied by ZPMC Quality Control Miss. Zhu Weijuan and Mr. Zhong Chuan. QA Inspector Brannon verified, plate ID #, Grade, Batch # and material test reports. QA Inspector Brannon wrote lot numbers and marked the direction of rolling on each of the 2 samples. Caltrans lot numbers for check samples are as follows.

No. 194, ID#WY070826Q109, Grade A709M-345F2-X, Heat No. 07301552N0, MTR No. 6397,
Remarks-SPCM, Lot No. B22-028-08.

No. 196, ID#BS071127A008, Grade A709M-345F2-X, Heat No. 07301584N0, MTR No. 6434,

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Remarks-SPCM, Lot No. B22-027-08.

The above lot numbers were written on the each check sample along with an arrow showing the direction of rolling. The lot numbers, date, batch/heat numbers, plate type/grade and plate thickness were all entered on the Caltrans check sampling tracking log for Caltrans Project 04-0120F4. Note: Miss Weijuan informed QA Inspector Brannon that the 18 samples from yesterday and the 2 from today will be sent to Shanghai Testing Lab for testing.

Bay 7-OBG Floor Beam Sub Assembly:

QA Inspector Brannon randomly observed ZPMC qualified welder Mr. Zhang Gingquan ID#044774 and Mr. Wang Lin Jiang ID#051356 fillet welding at weld joint's 109 and 110 for FB025-01 joining stiffener plate to floor beam plate. Mr. Zhang and Mr. Wang was observed welding in the 2F (horizontal) position utilizing flux cored arc welding (FCAW) process with a 1.4mm diameter electrode, filler metal brand Supercored 71H, class E71T-1 machine. QA Inspector Brannon observed the ZPMC QC Inspector Mr. Huang Wen Pang verifying that the welding parameters and pre-heat were in accordance with the Welding Procedure Specification (WPS). QA Inspector Brannon also verified the preheat temperature to be a minimum of 60°C and measured the welding parameters to be 298/294 amps, 29.7/30.1 volts, a travel speed of 443/445 mm/min and a shielding gas flow of 22L/min. Welding parameters measured by QA Inspector Brannon appear to be in general compliance with the approved WPS-B-T-2132-3, Revision 0.

Bay 1 - OGB Deck Panel (Gantry 1)

QA Inspector Brannon observed the 3rd U-Ribs Production Monitoring Test (PMT) for the (GMAW & SAW) process. QA Inspector Brannon observed the (SAW) process for production deck panel DP026-001 welds 1, 2, 5 & 6 and DP030-001 welds 1, 2, 3 & 4 closed rib welds. ZPMC welding personnel performed machine gas metal arc (GMAW) for the root pass and submerged arc welding (SAW) for the cover pass. Dual process WPS-B-T-2342-U1(U-rib)-3 was posted as the welding procedure specification for closed rib welding. The following weld joint and welder were recorded for the PMT, DP026-001 and DP030-001 weld joint (wj) wj-#1 Mr. Song Yin Shu ID#059421, wj-#2 Mr. Chen Jie ID#059468, wj-#3 Mr. Gao Xin Dong ID#059361, wj-#4 Mr. Jiang Ting Guang ID#062255, wj-#5 Mr. Mr. Song Yin Shu ID#0594 and wj-#6 Mr. Chen Jie ID#059468. Welding operator for the GMAW and SAW process was Mr. Li Xide. QA Inspector Brannon randomly observed ZPMC QC CWI Inspector Mr. Sun Wei monitoring welding parameters were in accordance with the Welding Procedure Specification (WPS).

The following digital photograph below illustrates observation of the activities being performed.



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Summary of Conversations:

No relevant conversations on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Brannon,Sherri	Quality Assurance Inspector
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Reviewed By:	Cuellar,Robert	QA Reviewer
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